# **TOSHIBA**

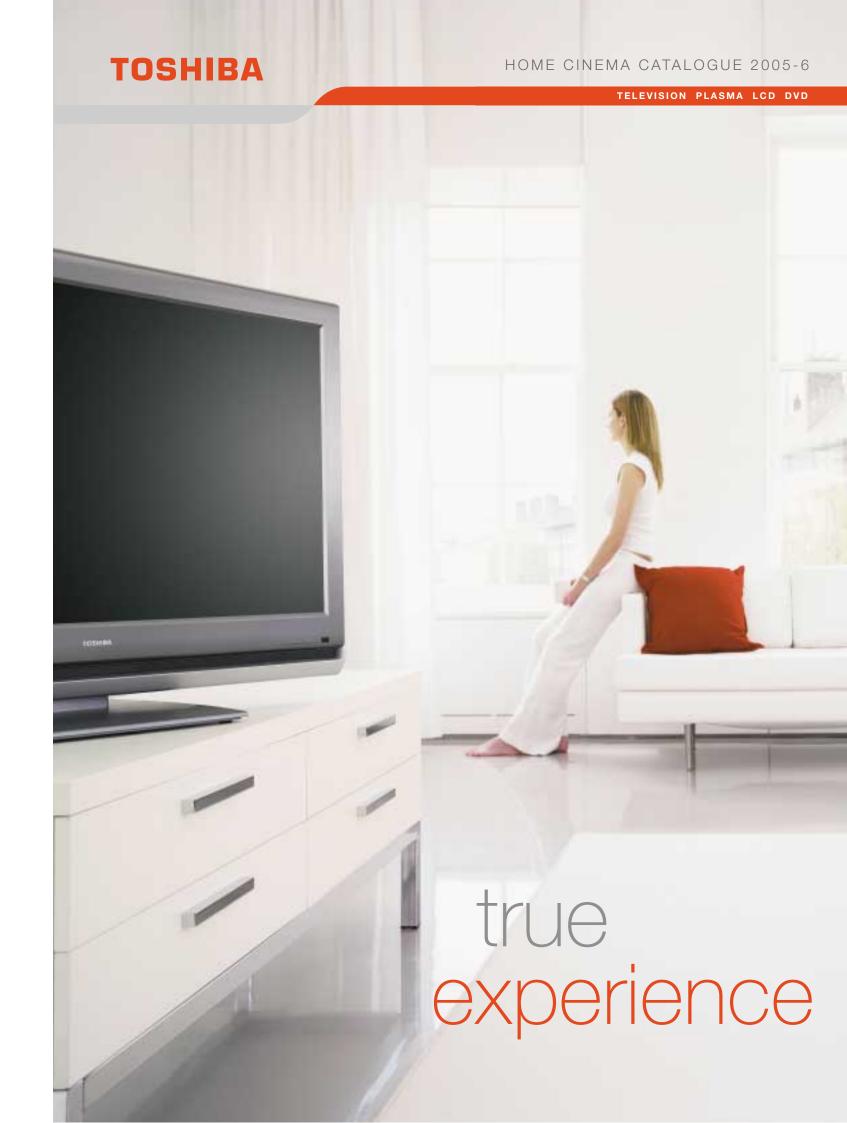


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# true experience

Toshiba home entertainment is an incredible experience where sound and images combine to stimulate your senses.

# contact us

Home entertainment products are accessories designed to complement and enhance your environment, both passively and interactively. They are tools with which you can define your personality and express your individuality. They may be dominant or discreet, blatantly stimulating or subtly enhancing.

Our range reflects this, with a wide selection of screen shapes and sizes, from impressive flat panel displays to compact TV combinations, from versatile DVD recorders to dynamic portable music players. Whatever you choose, Toshiba's experience will ensure that you enjoy a superb performance and truly memorable home entertainment.

Toshiba is a global company with expertise in a wide variety of fields. From televisions to laptop computers, X-ray machines and ultrasound scanners to air traffic control systems and pioneering mobile communications, Toshiba technology is all around you. This unrivalled pedigree ensures that Toshiba products will continue to exceed expectations and set new standards in an increasingly complex and competitive world.

We don't just care about how our products fit into an individual's home environment, we are also committed to wider environmental concerns such as recycling. Every product we make is subject to an eco-efficiency calculation that balances a product's value against the various environmental impacts of its lifecycle. We are taking a proactive role in the development of the European Union's directives for the recycling of waste electrical and electronic equipment (WEEE) and Restriction of Hazardous Substances (RoHS). Even our product brochures are produced using paper from a sustainable resource, paper that can be recycled at the end of its use.



Where this symbol appears on our product it should not be treated as household waste. By ensuring this product is

disposed of correctly, you will help prevent potential negative consequences for the environment and human health. For more detailed information about recycling this product, please contact Toshiba, your local household waste disposal service or the shop where you purchased the product.

We take great care in manufacturing our products and pride ourselves on our quality. That's why we believe in providing high levels of customer care, service and after sales support.

Click on to our website: www.toshiba.co.uk



Here you will find all the information you need to help you choose a Toshiba product, including a product comparison tool, latest award winners and in-store offers. You can also download brochures and user manuals, find your nearest stockist or register a new product.

Votes	

content

#### Insight

a detailed view of the latest technological advances

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# Insight: High Definition TV

#### **Get Ready for HDTV**

High Definition TV is coming soon.
For example, in the UK both commercial broadcasters and the BBC are already filming some programmes in High Definition. BSkyB has announced plans to start HD broadcasts in 2006 while many movie studios have committed to producing movies on HD DVD. You will need an HDTV receiver or HD DVD player, but most importantly, you will need a High Definition compatible TV.

#### What is HDTV?

Very simply, High Definition Television is a digital system that gives you picture quality that is vastly superior to current broadcast systems. The improvement in clarity, depth and sharpness of images is instantly visible.

HDTV provides an average of eight times more data on a display screen than a standard definition broadcast thanks to the increased picture resolution that HD broadcasts deliver.

#### The Technical Bit

- Current digital TV broadcast system (PAL) offers 576 active lines of picture information, sent as an interlaced signal, reproducing around 210,000 pixels.
- There are three main HDTV standards: 720p, which offers 720 lines of image, progressively scanned; 1080i, providing 1080 lines of interlaced image; and 1080p, which provides 1080 lines of progressively scanned lines.
- High Definition broadcasts carry two million pixels of data signal - that's around eight times more picture detail on the HDTV screen versus current Digital broadcasts.



A new European industry-wide technical standard has been defined for products which will be able to display High Definition images.

Any product featuring this logo guarantees:

 A minimum native resolution of the display or display engine (in the case of DLP projectors, for example) is 720 lines in widescreen format.

- The display will accept HD signals via component video and DVI or HDMI interface.
- HD component inputs that will accept the following video formats:
  a) 1280 x 720p and b) 1920x1080i (at 50 and 60Hz).
- A DVI or HDMI input with HDCP copy protection support.

#### **Available Now!**

Toshiba already has a range of TVs and projectors capable of displaying High Definition broadcasts in all their glory when they are available. In the meantime, you can make the most of the products' high specifications and their benefits.

#### **High Resolution**

The resolution of a screen dictates the amount of picture information you will see. The more image data available, the more detail in the display and the greater your viewing experience. That's why all the widescreen LCD TVs in this brochure have a minimum panel resolution of 1280 x 720 (almost 1 million pixels). Potentially each pixel can display different information, so enhancing the colour, tone and ultimately, the three-dimensionality of the image displayed.





HD Ready: three high-spec LCD TVs with high resolution screens, 2x HDMI and Component Video inputs, plus integrated digital receivers (p.8)



HD Ready: three striking LCD TVs with high resolution screens and HDMI input (p.10)

# HOMI

An industry standard for connecting high definition components, High Definition Multimedia Interface<sup>TM</sup> transmits uncompressed digital video and audio content over a single cable, replacing the multiple cables required with analogue AV connections. As there is no conversion from digital to analogue and back again (as with a SCART lead for example), the original digital quality is upheld.

HDMI<sup>TM</sup> dramatically simplifies home cinema system installation and offers numerous additional benefits including PC compatibility, automatic format adjustment, as well as automatic configuration of the system to turn on or off the components necessary to view a DVD, listen to a CD or watch cable or satellite TV.

# necessary to vior watch cable Screen Technology

Thanks to Digital TV, DVD and High Definition TV, the audio-visual quality of programmes available is generally far superior to anything we have experienced in the home before. However, you need to have the right equipment to enjoy this new level of home entertainment.

As pioneers of DVD and the new HD DVD technologies, we have shown our continuing commitment to bringing the very latest advances in AV technology into your home for your ultimate enjoyment. Our latest LCD screens are packed with image-enhancing technology such as Active Vision LCD and Real Digital picture processing, while our range of DLP<sup>TM</sup> TVs and projectors bring the full impact of cinema style viewing into your living room.

# <u>Nctive Vision</u>

## What is Active Vision LCD?

Active Vision is a high performance picture processing system designed to produce a stunning picture by enhancing four core elements of a television image:

Detail – Active Vision LCD can reproduce three times more pixels than a conventional LCD TV.

**Colour** – Active Vision LCD can reproduce four times more colour tones than a conventional LCD TV.

Movement – Using Real Speed
Progressive technology, Active Vision
LCD dramatically reduces jagged
edges on lines and detail during
fast-moving scenes.

Contrast – Active Vision LCD uses a dynamic contrast enhancer to adjust contrast levels automatically. While it is important for an LCD TV to have a high performance panel, for the best results it is absolutely essential to have a high performance picture processing system.

# What is Real Digital Picture Processing?

Real Digital adds yet another dimension to the picture processing technology by reducing the number of signal separations that normally occur in an LCD TV.

Signal processing in current LCD TVs has to pass through numerous separate signal conversions before it arrives at the panel processing chip. This process dramatically reduces the picture signal quality of the TV.

Toshiba's new Real Digital picture processing reduces the signal separation stages, therefore maintaining the original detail of the signal, and enhancing the picture performance.

If the HDMI™ interface is used, the signal is carried directly to the panel signal processor as a digital signal, and no picture separation occurs.

Decorative accessory or television? These flat panel TVs are uniformly stylish, with a super-slim display designed to fit into any home environment with the minimum of effort.

Delin die

High resolution screens, combined with Active Vision LCD and Real Digital picture processing technologies, ensure astonishingly crisp, vibrant images from within the minimal Picture Frame screen surround. Subtly mounted beneath the

screen to enhance the Picture Frame effect, the integrated stereo speakers offer a full, rich sound. Selected models also offer HDMI<sup>TM</sup> connectivity, in readiness for High Definition broadcasts.



true vision



HDTV Insight p.4 Active Vision Insight p.5

LCD WIDESCREEN



LCD Widescreen TV

Resolution: WXGA (1366x768 pixels) Active Vision LCD & Real Digital picture processing

Contrast ratio: 550:1 Brightness: 500cd/m<sup>2</sup>

SRS® WOW™ sound, Nicam, 20W RMS

2 HDMI™ interfaces

Component video input



**Optional accessories** 

Floor stand



**37WL58** – 94cm screen LCD Widescreen TV

Resolution: WXGA (1366x768 pixels)

Active Vision LCD & Real Digital picture processing

Contrast ratio: 800:1 Brightness: 500cd/m<sup>2</sup>

SRS® WOW™ sound, Nicam, 20W RMS

2 HDMI™ interfaces

Component video input



**Optional accessories** 

Floor stand



**32WL58** - 81cm screen LCD Widescreen TV

Resolution: WXGA (1366x768 pixels)

Active Vision LCD & Real Digital picture processing

Contrast ratio: 800:1 Brightness: 500cd/m<sup>2</sup>

SRS® WOW™ sound, Nicam, 20W RMS

2 HDMI™ interfaces Component video input





Optional accessories

Floor stand

# **Н**ОМІ<sup>ТМ</sup>

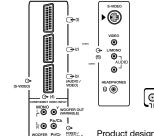
**LCD WIDESCREEN TV** 

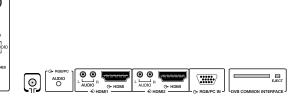
High-definition Multimedia Interface™ is a new industry standard for connecting high definition components. HDMI™ transmits uncompressed digital video and audio content over a single cable, replacing the multiple cables required with analogue AV connections and ensuring exceptional

digital quality. HDMI™ dramatically simplifies home cinema system installation and offers numerous additional benefits including PC compatibility, automatic format adjustment, and automatic configuration of the system to turn on or off the components necessary to view a DVD, listen to a CD or watch cable or satellite TV.



42WL58 / 37WL58 / 32WL58





Product design and specification subject to change or modification without notice. Screen tint for illustration purposes only. For detailed specifications see page 36





Resolution: WXGA (1366x768 pixels)

Active Vision LCD & Real Digital

picture processing

Contrast ratio: 600:1

Brightness: 500cd/m<sup>2</sup>

SRS® WOW™ sound, Nicam, 20W RMS

HDMI™ interface









#### Accessories

Floor stand

# **32WL56** – 81cm screen LCD Widescreen TV

Resolution: WXGA (1366x768 pixels)

Active Vision LCD & Real Digital

picture processing

Contrast ratio: 800:1

Brightness: 500cd/m<sup>2</sup>

SRS® WOW™ sound, Nicam, 20W RMS

HDMI™ interface









#### Optional accessories

Floor stand

# **27WL56** – 69cm screen LCD Widescreen TV

Resolution: WXGA (1280x720 pixels)

Active Vision LCD & Real Digital

picture processing

Contrast ratio: 900:1

Brightness: 500cd/m<sup>2</sup>

SRS® WOW™ sound, Nicam, 20W RMS

HDMI™ interface







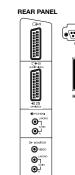


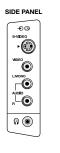
# **HD Ready**

HD Thanks to the combination of high resolution screens, HDMI™ and component video inputs, these televisions are all set to display the high definition images.

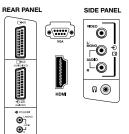
HDTV Insight p.4 **Active Vision Insight p.5** 

#### 37WL56 / 32WL56





#### 27WL56





Product design and specification subject to change or modification without notice. Screen tint for illustration purposes only. For detailed specifications see page 36.





# **27WL54** – 69cm screen LCD Widescreen TV

Resolution: WXGA (1280x720 pixels)

Contrast ratio: 900:1

Brightness: 550cd/m<sup>2</sup> Multi-standard tuner

Nicam, 16W RMS





# **23WL56** – 58cm screen LCD Widescreen TV

Resolution: WXGA (1280x768 pixels)

Contrast ratio: 400:1

Brightness: 450cd/m<sup>2</sup>

Multi-standard tuner

Nicam, 10W RMS





# **20WL56** – 51cm screen LCD Widescreen TV

Resolution: WXGA (1366x768 pixels)

Contrast ratio: 800:1

Brightness: 450cd/m<sup>2</sup>

Mutli-standard tuner

Nicam, 10W RMS

Component video input





# **LCD Technology**

LCD or Liquid Crystal Display technology uses liquid crystal movement to produce a high resolution with superb contrast, brightness and colour depth in a lightweight, flat panel display.

Clarity and size aren't the only advantages – LCD screens also consume around 40 per cent less power than the cathode ray tube (CRT) in most conventional TVs.

## 27WL54

Connection diagram not available at time of going to press.

## 23WL56 / 20WL56





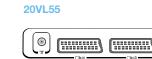




















**20VL56** – 51cm screen **LCD** 4:3 TV

Resolution: VGA (640x480 pixels)

Contrast ratio: 350:1 Brightness: 450cd/m<sup>2</sup>

3D digital comb filter

Nicam, 10W RMS 2 SCART

**20VL55** – 51cm screen **LCD** 4:3 TV

Resolution: VGA (800x600 pixels)

Contrast ratio: 500:1 Brightness: 450cd/m<sup>2</sup>

3D digital comb filter

Nicam, 6W RMS 2 SCART

**14VL44** – 35cm screen **LCD** 4:3 TV

Resolution: VGA (640x480 pixels)

Contrast ratio: 600:1 Brightness: 450cd/m<sup>2</sup>

Multi-standard tuner

Nicam, 6W RMS

2 SCART

# **Compact LCD Styling**

LCD technology (see p.16) has helped to make TV universally accessible in the home. The superslim panel and compact styling with discreetly mounted tuner and stereo speakers have opened

up every room in the house, even where space is at a premium, to the possibilities and pleasures of audio visual entertainment.

20VL56













**42WP56** – 107cm screen **Plasma** Widescreen TV

Resolution: WVGA (852x480 pixels)

High contrast ratio: 3000:1

High brightness: 1500cd/m²

Real Digital picture processing

Multi-standard tuner

SRS® WOW sound, Nicam, 20W RMS

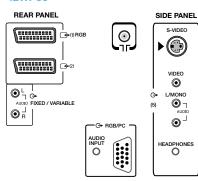
WOW by SRS (•)\*

# Plasma Display

Plasma technology uses thousands of tiny fluorescent lights (phosphors) to create a large image with minimal screen depth. Picture performance is impressive with incredibly sharp, flicker-free images and outstanding bright colours.

A plasma screen with high specifications for Contrast Ratio, Brightness Level and Resolution will offer strong images in any lighting environment.

#### 42WP56













**29VH56G** – 68cm screen **29VH57** – 68cm screen 100Hz **Face Flat** TV

100Hz Nicam, 20W RMS 3 SCART

100Hz DIGITAL STEREO

Accessories
Cabinet Stand

29V53 - 68cm screen 50Hz Face Flat TV

50Hz Nicam, 20W RMS 2 SCART

DIGITAL STEREO

Accessories
Cabinet Stand

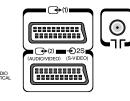
15V31 - 36cm screen
Face Flat TV

Selectable picture
Text with Fastext
Auto set-up
SCART

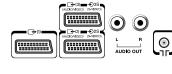
# **Face Flat Screens**

A Face Flat TV has a horizontally and vertically flat TV tube which offers a wider viewing angle along with enhanced picture linearity to produce accurate, life-like images. Unlike the curved face

of a conventional tube design, this totally flat screen minimises reflections from room lighting and results in a significant improvement in clarity, contrast and brightness. 32**Z**H56













15V31





### **Selectable Picture**

Not every room is the same in terms of ambient light levels so to achieve the best possible picture, you may want to adjust your TV's settings. For simplicity, the Selectable Picture function offers

you three pre-set and one user-adjustable settings for picture colour, brightness and contrast, accessed at the press of a button on the remote control.

28N53







21S53







# Insight: DVD Recorders

A DVD Recorder is little short of the ultimate in digital entertainment versatility. TV, home video, family photos, music, movies wherever and whenever you want... with a DVD recorder the choice is yours.

Toshiba's DVD recorders are multidrive so you can choose the media (disc type) you want to record onto integrated hard disk, or removable DVD-RAM, DVD-RW or DVD-R (depending on the model).

#### What is recordable DVD?

A DVD recorder allows you to record, edit and play back material with astonishing ease and absolutely no loss of quality. Before recordable DVD, if you wanted to record a programme or home movie, you were expected to compromise on quality, with a tape of limited capacity and susceptible to long-term deterioration. Not to mention the hassle of searching for a blank cassette at the last moment, or the risk of recording over something you wanted to keep.

All that has changed. Recordable DVD offers durable discs of varying format and capacity capable of storing great quantities of digital information for your enjoyment.

A DVD recorder isn't just about recording programmes from TV, or even digital images from camcorders and cameras. It also gives you complete control to edit the bits you want, then archive the final version on a permanent disc or give copies to friends.

#### Which format?

There are several different recording formats. A DVD recorder records video and audio optically onto discs. Discs are available in different formats and can be either 're-writable' (DVD-RAM, DVD-RW) or used only once (DVD-R). A DVD hard disk recorder offers the added benefit of a built-in hard disk drive (HDD), as well as a removable disc option.

#### **Hard Disk Drive**



The most obvious benefits of a hard disk are the capacity\* and simple editing/dubbing capabilities. You can use the HDD for everyday recordings, then edit and dub to disc if you want to keep them or pass them on to someone else.

\*(up to 206 hours on the RD-XS64)

#### **DVD-RAM**



A DVD-RAM disc is ideal for recordings you want to edit and archive. The disc may be single or double-sided and is re-writable up to 100,000 times meaning the content can be erased and the disc can be reused with no risk of deterioration in quality. For added durability, some DVD-RAM discs are encased in a plastic caddy, protecting them from fingerprints and scratches.

The main advantages of DVD-RAM are the recording and editing versatility. With the Random Access Memory (RAM) format, all available space on a disc can be used, unwanted sections of programmes can be simply edited or deleted, and new recordings made without accidentally recording over something you wanted to keep.

#### **DVD-RW**



A DVD-RW disc is also re-writable, up to a maximum of 1,000 times. However, recording is linear, just like on a VHS tape, so although recordings can be deleted and replaced, they cannot be edited. This means that there is greater risk of over-recording and wasted space than with a DVD-RAM disc.

#### DVD-R



Like CD-R. a write-once DVD-R disc can only be used to record once and the recording cannot be deleted. The main advantage is that they are cheap to buy and compatible with most DVD players, recorders or DVD drives, making them ideal for loans to friends and multiple copying (for example, a wedding or holiday video).

#### Timeslip feature

Start recording a real-time broadcast



'chase play

You come home and watch the recorded footage using





20:30





The recording







#### **Timeslip**

Now you can make the TV schedule fit in with your own schedule thanks to the brilliant Timeslip feature that gives you the option to 'Chase' or 'Pause' TV.

Chase TV means you can watch the start of a programme at any time, while it is being recorded. For instance, watch the start of the Grand Prix before waiting for the end of the race.

Hard Disk models also allow you to pause a live programme at the touch of a button, then continue from that point when you are ready. Meanwhile, you can keep an eye on the real-time broadcast with the 'Picture in Picture' feature which opens a small picture box showing the live programme.



Picture from the real-time TV broadcast

Picture being played back

Picture in Picture feature

# Easy Navi\*



With so many features and functions on our Hard Disk Recorders, it would be natural to feel daunted at the prospect of finding your way around. However, our HDD recorders\* feature a simplified Easy Navi menu option which gives you easy access to recordings and key features. Simply press the Easy Navi button on the remote control while watching TV or playing recorded footage to display the navigation menu on the screen. From there it's just one press of the button to access all the operations you need to playback, record or edit.

\*(RD-XS24).

The menus are completely intuitive, aided by thumbnail visuals of programme content. The recorder even recognises when a camcorder is connected, automatically providing the appropriate on screen menu to download footage using the recorder's remote control.



Edit menu DV recording window



#### **Satellite Box Control**

Multiple recordings from satellite is just as easy. You simply select the appropriate channel in the programming window and be sure to leave the satellite box switched on. The recorder will automatically switch the satellite receiver to the appropriate channel for each recording.



NSIGHT: DVD RECORDERS



## **Easy Navi**

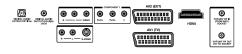
Easy Navi is a navigation menu option giving easy access to recordings and key features. When the Easy Navi button on the remote control is pressed while watching TV or playing recorded footage,

the appropriate navigation menu appears on the screen. From there just one press of the button enables access to all the operations needed to playback, record or edit. **DVD** Recorder Insight p.24

RD-XS64 - Front Panel Connections



RD-XS64 - Back Panel Connections



RD-XS24 - Front Panel Connections



RD-XS24 - Back Panel Connections

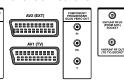


D-VR30 - Front Panel Connections



O AUDIO L

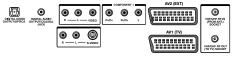




**D-R255** - Front Panel Connections



D-R255 - Front Panel Connections



Product design and specification subject to change or modification without notice. For detailed specifications see page 38.



PAL progressive & component video output Simultaneous record & play

000000000

PDC

SD-26VE

7 event, 1 month timer

JPEG, MP3 compatible

Combi **DVD / Video** 

DVD video player with Nicam VCR









SD-36VE Combi **DVD / Video** DVD player with Nicam VCR Simultaneous record & play PDC

PAL progressive & component video output

DivX®, JPEG, MP3 compatible

DIGITAL VIDEOPUST

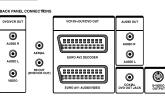
# **Component Video**

To make the most of the incredible picture quality from DVD, Toshiba has included a Component Video Input on all of its Home Cinema televisions, display panels and projectors.

This input option is typically found on professional broadcasting equipment and gives you far greater flexibility to adjust the brightness and contrast balance than via a conventional RGB interconnection.

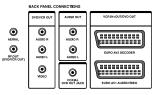
#### SD-36VE

000



#### SD-26VE











DVD video player

DivX® playback

JPEG, MP3 compatible

DIGITAL CLS

**SD-350E** DVD **Video** 



**SD-250E** DVD **Video** 

DVD video player PAL progressive & component video output Dolby®Digital & DTS® compatible DivX®, JPEG, MP3 compatible DI GITAL COMPACT

**SD-152E** DVD **Video** 

DVD video player PAL progressive & component video output Dolby® Digital & DTS® compatible JPEG, MP3 compatible







### **HDMI™** Up Conversion

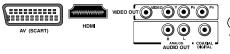
**DVD VIDEO** 

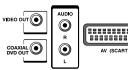
High Definition displays require a minimum resolution of 1280x720p. However, existing DVD videos have a native resolution of 480p. An up conversion DVD player is capable of upgrading a current DVD's resolution to high resolution 1080i or 720p signals. Therefore, if you have, or are considering purchasing an HD Ready TV

in anticipation of forthcoming High Definition programming (broadcast or HD DVD), a DVD player with up conversion capability will enable you to view your existing DVD videos with the higher resolution. As the up-conversion process is completely digital, there is no loss of data or quality, as there would be with a digital-analogue conversion.

HDTV Insight p.4

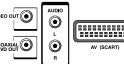
SD-350E





SD-250E / SD-151E

**SD-152E** 











**SD-P2700** – 23cm screen Portable **DVD Video** 

Resolution: WSVGA 3.5 hour rechargeable battery Dual headphone outputs

DivX®, JPEG, MP3 compatible

DI DOLBY DIGITAL AUGO

# **SD-P1610** – 17cm screen Portable **DVD Video**

Resolution: QVGA 3 hour rechargeable battery Dual headphone outputs DivX®, JPEG, MP3 compatible







**DivX**®

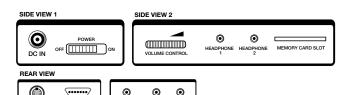
DivX<sup>®</sup> is a video compression software which enables high quality video to be compressed into very small files, then downloaded onto CD-R or CD-RW and played back with very little loss of quality.

PORTABLE DVD VIDEO

### MP3 and WMA

MP3 and WMA (Windows Media® Audio) are both audio compression formats used for downloading music files from the internet, then decompressed and stored on disc. A DVD video player compatible with these formats will then be able to play back the music files from CD-R or CD-ROM.

## SD-P2700



Product design and specification subject to change or modification without notice. For detailed specifications see page 38.

## SD-P1610



# Technology Explained

#### 100Hz DFS (Digital Frame Scan)

Picture processing system offering two picture modes: Natural Mode and 100Hz

#### Active Mode

Picture processing system offering exceptionally smooth movement by maximising the use of the 360∞ motion estimation. Any jitter on line detail and text is eliminated by altering the sequence of line scanning down the screen

#### **Active Sub Woofer**

Low frequency effects (bass) speaker driven by its own internal amplification source

#### **Active Vision**

High performance and flexible picture processing system offering different picture modes: Active, Natural, Progressive Scan. 100Hz (see p.5)

#### **Advanced Editing Features**

DV editing suite for recordings or home movies, including high-speed dubbing, multiple recording deletions or transfers and DVD-R creation

#### **ANSI Lumens**

Standard for measuring light output, used for comparing projectors

#### **Aspect Ratio**

Width to height ratio defining the screen or image, conventional widescreen being 16:9 (16 units wide by 9

#### Auto Set-up

Automatically tunes in all channels in the correct order on TVs and VCRs

#### **Bass Boost**

Enhances low-frequency sound without a separate sub

#### Brightness Level

A high luminance rating ensures a brilliant, clear image even in bright light conditions

Displays on the TV screen any formatted CD text data available on the disc, eg song titles

Watch the start of a programme before the DVD recorder has finished recording the end

#### Co-axial Audio Terminal.

Enables digital audio connection between a DVD player and decoder or digital playback equipment.

#### **Component Video**

Connection found on selected Toshiba TVs, DVD players and projectors, for optimum picture quality. Allows the brightness and contrast of the picture to be adjusted to suit room conditions

#### **Composite Video**

Standard video signal used to send pictures eg from a VCR to a TV

#### **Contrast Ratio**

Ratio between white and black. The greater the contrast ratio, the greater the ability to show subtle colour details

#### **Dark Tint**

Treatment of the front panel of the CRT to absorb ambient light. enhance black reproduction and provide increased contrast

Reduces the moiré effect sometimes caused by fine lines or checked patterns and maximises the resolution from high quality image sources such as DVD

#### **Digital Picture Processing**

Processes which improve TV picture quality, brightness and colour

#### DivX<sup>®</sup>

Video compression software which enables high quality video to be compressed into very small files then downloaded onto CD-R or CD-RW and played back with very little loss of quality

#### **NivX® Playback**

Allows DivX® encoded video tracks to be played back via CD-R or CD-RW

Ensures superior picture quality by 'cleaning' images and reducing picture 'noise'. Particularly useful for older movies where the source master has picture noise

#### Dolby® Digital 5.1 Surround

Six totally independent channels of digital sound: stereo front left and right, centre dialogue and stereo rear, plus dedicated sub woofer

#### Dolby® Pro Logic® II

Enhanced surround sound system offering a virtual stereo rear channel

#### Dolby® Pro Logic® Surround

Four-channel surround sound: S tereo front left and right, centre dialogue and mono rear

#### DTS® (Digital Theatre System)

Alternative system of encoding six channel digital surround sound, used in some cinemas and on some DVD discs

A write-once disc which cannot be deleted

Re-recordable disc, sometimes encased in a protective caddy. It can be single or double-sided, and can be reused up to 100,000 times

#### **DVD Text**

Displays on the TV screen any formatted DVD text data available on the disc

#### **DVI** (Digital Video Interface)

Industry standard digital interface for transferring high quality computer graphics or video content (eg from a digital camcorder) to a display screen with no loss of quality

Button on remote control of some Toshiba DVD Recorders offering simplified menu access to recordings and key features

#### **Enhanced Audio Mode (EAM)**

Allows different audio channels on DVD to be enhanced separately, i.e. dialogue or surround sound

#### **Enhanced Picture Mode (EPM)**

Allows selection of three different colour and contrast settings to suit movies, animation, etc

## **Enhanced Video Amplifier**

Ensures superior picture quality by making whites even

Horizontally and vertically flat TV tube technology which offers a wider viewing angle and reduced reflection

Enables guick access to key TV text pages using the red, green, yellow and blue buttons on the remote control

#### HDD (Hard Disk Drive)

High-capacity digital storage device

#### HDMI™ (High-definition Multimedia Interface)

New industry standard digital interface for connecting high definition components in a home cinema system, and transferring uncompressed digital video and multi-channel audio content via a single cable

High capacity DVD video format offering very high picture

#### **HD TV (High Definition Television)**

A digital system that produces picture quality vastly superior to current broadcast systems

#### Icon On-screen Display (OSD)

On-screen menus illustrated by icons, to enable simple operation of equipment and guide you through various setting and programming functions

#### Index Search

Makes it easy to find the beginning of any item recorded on

#### Invar Mask

Displays purer whites on the TV screen

#### Jitter Reduction

Technology to minimise fluctuations in the digital signal to enhance video and audio quality and ensure the picture has

#### JPFG Viewer

Enables viewing of digital camera images through a DVD player via CD-R/DVD-R or CD-RW (model dependent)

#### Liquid Crystal Display (LCD)

Screen technology using liquid crystal movement to produce a high resolution with superb contrast, brightness and colour depth

#### **Luminous Remote**

Luminous buttons on the remote control for easy operation in a darkened room

#### MP3 Playback

Technology which allows MP3 encoded music tracks to be played back via CD-R

#### **Multiple Camera Angles**

Scenes shot from up to nine different camera angles at the director's discretion may be stored and viewed no DVD (software dependent)

#### **Multiple Language Tracks**

Up to eight different language soundtracks may be recorded on a single disc and up to 32 different language subtitles (software dependent). Nearly all DVDs carry English subtitles

#### Multi-standard Tuner/Video Playback

Able to display images from all world broadcast standards (NTSC. PAL. SECAM)

Sound broadcasting system capable of delivering CDquality digital stereo sound or mono sound, and of carrying a Dolby® Pro Logic® or Dolby® Digital soundtrack.

TV broadcast system used primarily in the USA and Japan

#### **NTSC Video Playback**

TV technology which enables NTSC tapes to be viewed when played back on an NTSC video recorder

Switches the TV to standby mode at a pre-determined time

#### **One-touch Front panel Operation**

Buttons on the DVD players giving instant access to audio and picture setting menus

#### Ontical Audio Terminal

Enables digital audio signals to be sent from digital sources such as DVD and laser disc players to digital playback equipment via a fibre-optic connection

TV broadcast system used in UK and some other countries.

#### **PAL Progressive**

If a TV or projector is capable of reproducing a progressive image, a progressive output is required from the video source (eq DVD). Previously only available for NTSC format material, PAL Progressive offers higher quality picture reproduction due to the greater number of horizontal lines that make up the image (540 versus 480 lines in NTSC)

Locks the controls on the TV to prevent changes to settings

#### Parental Lock

Allows discretionary 'locking' of DVD software using a code so that undesirable or inappropriate sections are automatically skipped (software dependent)

#### **Passive Sub Woofer**

Low frequency effects (bass) speaker driven by an external amplification source

Pause a live TV programme then continue from where you left off while recording to the end

#### Picture in Picture

Pause TV

View a second channel in a window on the main screen

#### Picture Size Adjustment Adjusts the format of the picture to suit the TV screen

Individual dots of information that a display uses to create an image. The number of pixels is defined by a screen's

# resolution

Screen technology using thousands of tiny fluorescent lights (phosphors), ensuring even brightness and detail across a large screen

#### Programme Delivery Control (PDC)

Responds to a broadcast signal which ensures that recording begins only when the programme actually starts and stops when the programme ends. Check with your regional broadcaster for details of PDC availability in your area. Not available on satellite or digital broadcasts

Scans individual picture lines in sequence rather than alternately, maximising the clarity of digital images from DVD and enhancing NTSC software playback

Analogue audio connection, usually for transfer of audio data to a hi-fi system or PC **Real Digital Picture Processing** 

signal separations that normally occur in an LCD TV so

#### Picture processing technology that reduces the number of

maintaining image detail

create an image

Input that accepts computer signals broken down into Red. Green. Blue, minimising interference

Refers to the number of individual dots that a display uses to

# Standardised unit of power measurement used for audio

performance Satellite Box Control Allows DVD recorder to switch channels on the satellite

#### receiver automatically for each programmed recording

21-pin cable connector which enables high-quality picture and stereo sound (including Dolby® Pro Logic® soundtracks) to be sent between AV equipment

# TV broadcast system used in France and some other

countries Selectable Picture Three pre-set and one user-adjustable settings for picture colour, brightness and contrast, selected at the press of a

Enhanced 3-dimensional sound from stereo speakers

Process which improves TV picture contrast

## Super Scene Control

Connection method for high quality video transfer used with S-VHS video recorders, camcorders, DVD players, etc

#### **Text Sub-page Memory**

Allows you to move through text sub-pages at your own speed using the remote control

#### Timeslin

Feature which allows you to Chase TV or Pause TV

#### Twin Tuner

Allows one channel to be viewed while another is being recorded (on a Combi TV/VCR)

#### **Up Conversion**

DVD technology that converts the 480p signal on standard DVD videos to 720p or 1080i signals for optimum quality display on High Definition screens

#### Variable Zoom

DVD technology offering magnification of the on-screen image, allowing you to zoom in and move around the

Simple way to record TV programmes, using numerical codes (PlusCodes) shown in many TV listings pages to tell the VCR when to start and stop recording. Up to six programmes can be recorded from six different channels.

#### Virtual Dolby®

Enhances Nicam stereo soundtracks to give a virtual surround sound using just the stereo speakers.

#### Visible Screen Size

Measured in centimetres diagonally across the screen. Cinema-style picture format, also used to describe 'wide'

Windows Media® Audio, Microsoft's own audio compression method similar to MP3

images (16 units wide by 9 units high).

Lens with variable focal length providing the ability to vary the image size on a screen by adjusting the zoom lens, instead of having to move the projector closer or further away.

> The Copyright, Design and Patent Act 1988: While recording broadcasts is now permitted, users of sound and video recording equipment should note that in other circumstances it may be unlawful to record television programmes, cinematic films or video recordings without the permission of the relevant copyright holder.

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# Plasma and LCD

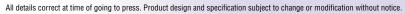
	42WL58	37WL58	32WL58	37WL56	32WL56	27WL56	27WL54	23WL56	20WL56	20VL56	20VL55	14VL44	42WP56
See page	8	9	9	10	11	11	12	13	13	14	15	15	17
Picture													
	107	94	81	94	81	68	68	58	51	51	51	35	107
	16:9	16:9	16:9	16:9	16:9	16:9	16:9	16:9	16:9	4:3	4:3	4:3	16:9
	LCD	LCD	LCD		LCD	LCD		LCD	LCD	LCD	LCD	LCD	Plasma
	W XGA (1366x768)		W XGA (1366x768)	(1366x768)			(1280X720)	W XGA (1366x768)	W XGA (1366x768)	VGA (640x480)	VGA (640x480)	VGA (640x480)	W VGA (852X480)
			-										
	550:1	800:1	550:1		800:1		900:1	550:1	800:1	350:1	350:1	600:1	3000:1
	500	500	500	500	500	500	550	500	450	450	450	450	1500
				-						-			
										-	-		-
				-						-			
Auto format (WSS)													
tale and a Feet and													
Interactive Features													
Fastext													
Text page memory													
Audio													
Audio		_	_	_	_	_		_	_	_	_	_	
	20	20	20	20	20	20	16	10	10	10	6	6	00
	20		20	20	20	20		10	10	10	6	6	20
			•										
			•				_	_	_	_		_	
Selectable sound		•	•	•		•		•	•	•	-	•	•
Tuning													
		_								_			_
	100	100	100		100	100	_	100	100	100	100	100	100
		100	100	100	100	100	100	100	100	100	100	100	100
										:	-		
NTSC video playback	-	-	-	-	-	-	-	-	-	-	-	-	-
Connections													
	2	2	2			-	-						
	_	_	_			Via PC Input	Via PC Input						
	2	2	2	1	1	1	2	2	1	1	1	1	1
	3	3	3	2	2	2	2	2	2	2	2	2	2
Front/side AV input	•	•		_	_	_	_	_	_	_	_	_	_
			-				-			-	-		
	_												
				_	_			_	_	_	_	_	_
- rodupitorio	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Features													
Off timer	-												
Previous channel return													
Accessories													
Pedestal stand					<b>.</b>						-		
(Optional*)cabinet/ floor stand	•				■*								
Dimensione													
Dimensions	1011	045	704	040	704	000	705	010	507	400	407	440	1100
	1044	915	794	916	794	690	705	619	537	490	487	448	1100
	708	617	547.5	661	576	516	516	428	383	427	427	470	740
	757	667	601	715	629	570	587	470	425	468.2	481	479	779
	107.5	107	99	109	99	99	109	99	92	67.7	220	225	146.5
	1145	1106	1055		1075	N/A		N/A		N/A	N/A	N/A	N/A
	29.4	22	18	24.9	17.6	12.9	12.9	N/A	N/A	7.6	8.2	6.8	N/A
		B1/A	BI / B	10011/	455147	400147	100147			05144	05144		
Power Consumption (Typical)	N/A <1W	N/A <1W	N/A <1W	180W <1W	155W <1W	130W <1W	130W <3W	N/A <3W	N/A <3W	65W <1W	65W <4W	<4W	N/A N/A

\*N/A: information not available at time of going to press



Model	32ZH56	29VH56	29VH57	29V53	15V31	28N53	21S53	21N51	14N51
See page	20	20	21	21	21	22	23	23	23
Picture									
Visible Screen Size (CM)	76	68	68	68	36	66	51	51	43
Screen Format	16:9	4:3	4:3	4:3	4:3	4:3	4:3	4:3	4:3
Display Technology	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT
Comb Filter (3D/Digital)	OTTI	•	OIII	OIII	OITI	OTT	OTT	OTT	OITI
100Hz		=							
DNR		=	-						
Selectable Picture Format		=							
		-							
Auto Format (WSS)									
Interactive Features									
	_	_	_	_	_	_	_	_	_
Fastext				-	=	-	-	-	
Text page memory					-	-			
Audio		_		_		_	_		
NICAM stereo		00	000	40	-	00	40	-	
Sound output (RMS) W	20	20	20	13	5	20	10	5	1
Bass boost									
Selectable sound									
Tuning									
Auto set-up									
Number of channels (Analogue)	100	100	100	100	100	100	100	100	100
Multi-standard tuner									
NTSC video playback									
Connections									
RGB	1	1	1	1	1	1	1	1	1
SCART	2	3	3	2	1	2	2	1	1
Front/side AV input									
S - Video Input	SCART Only		SCART only	SCART only		SCART only			
Rear Audio Out									
Headphone									
Off timer									
Panel lock									
Previous Channel Return									
Accessories									
(Optional*) Pedestal Stand						<b>*</b>	<b>■</b> *	<b>*</b>	
(Optional*) cabinet / Floor Stand						<b>■</b> *			
Dimensions									
Width (mm)	903	673	673	N/A	366	742	604	506	376
Height (mm)	557	595	595	N/A	373	576	452	465	346
Depth (mm	545	496	496	N/A	397	480	490	492	374
Height with stand (mm)	1055	N/A	N/A	N/A	N/A	945	818	818	N/A
Weight (Kg) without stand	N/A	42	42	N/A	11	33	21	21	9.5
Power Consumption	144W	142W	142W	N/A	45W	135W	95W	N/A	75W
	<1W	<3W	<3W	N/A	<2W	<3W	<3W	N/A	<5W
Power Consumption (Stand-by)									

<sup>\*</sup>N/A: information not available at time of going to press





Model See page	RD-XS64 26	RD-XS24 27	<b>D-VR30</b> 27	<b>D-R255</b> 27	<b>SD-36VE</b> 29	<b>SD-26VE</b> 29	<b>SD-350E</b> 30	<b>SD-250E</b> 31	<b>SD-152E</b> 31	<b>SD-P2700</b> 33	<b>SD-P1610</b>
DVD Video	20	21	21	Z1		29	30	-	31	33	33
Portable DVD		-		•		-		-	•		
DVD Recorder										_	
Hard Disk Drive	160 GB	160 GB	_	_							
Combi DVD/VCR											
Nicam Stereo											
Number of Heads			6		6	4					
Compatibility											
Compatibility CD Audio				-		_		-			
Video CD						-					
CD-R											
CD-RW											
DVD-RAM			no cartridge								
SVCD											
DVD Video											
DVD-R											
DVD-RW	•										
JPEG Viewer											
MP3											
DivX <sup>®</sup> NTSC Playback*	•							-			
IVI GO I IAYDAGK											
Sound											
3D Virtual Surround Sound											
Dolby <sup>®</sup> Digital Compatible											
DTS® Compatible											
Enhanced Audio Mode											
NICAM Stereo											
Dieture											
Picture			_	_		_					
PAL Progressive DNR						-					
lcon on-screen display											
Slow Motion											
Variable Zoom											
Display											
Panel Size										8.9" Wide	7" Wide
Resolution										1024x600	480x234
DVD Recording											
Simultaneous Record & Play											
omataneous riccord & riay	_	_	_	-							
VCR Recording											
VideoPlus											
Digital Auto Tracking											
Auto Repeat Playback											
Interactive Concletiti											
Interactive Capabilities		_									
Timeslip TV Picture in Picture				•							
ricture III Ficture											
Connections											
Analogue 2 channel audio											
Co-axial/Optical audio											
Component Video	•										
Composite Video											
SCART (RGB)	2	2	2	2	2	2	1	1	1		
S-video	•	-									
Headphone Socket		_	_			_				2	2
Front AV											
HDMI Output											
Other Features											
Easy Navi											
Dimensions											
Width	430	430	430	430	430	430	430	420	420	259	190
Height	79	69	84	59	82	78.5	42	49	49	35	30.5
Depth Weight(kg)	272 4.2	316 4.3	321 4.8	272 2.9	282 5.4	265	200	265	264 2.3	193 1.2	145 0.69
						4.2	1.6	2.3			